

REMARKS/ARGUMENTS

The Office Action mailed December 5, 2005 has been carefully reviewed. Reconsideration of this application, as amended and in view of the following remarks, is respectfully requested. Claims 12, 20, and 21 have been cancelled. The claims presented for examination are: claims 1-11 and 13-19.

35 USC 112 Rejection

In the Office Action Mailed December 5, 2006, claims 19 and 21 were rejected under 35 U.S.C. 112 because in claim 19 it is unclear how "reactions" could be attached to the beads and in claim 21 is unclear how "outlet flow would capture the beads."

Claim 19 has been amended to clarify that the step comprises "attaching antibodies or antigens to said beads." The rejected claim 21 has been cancelled.

35 USC 102 Rejection

In numbered paragraph 1 of the Office Action mailed December 5, 2006, claims 1, 2, 7-12, 16, 17, 20 and 21 were rejected under 35 U.S.C. 102(b) as being anticipated by the Kornelsen reference (US Patent No. 6,629,820).

Applicant has amended independent claims 1 and 11 presented for examination and has cancelled rejected claims 12, 20, and 21; therefore claims 1, 2, 7-11, 16, and 17 are now presented in amended form. Since claims 1, 2, 7-11, 16, and 17 now appear in amended form the 35 USC §102(b) rejection in the Office Action mailed December 5, 2006 no longer applies.

Applicant believes the invention claimed in claims 1, 2, 7-11, 16, and 17 is not anticipated by the Kornelsen reference. The standard for a 35 USC §102 rejection is stated in RCA Corp. v. Applied Digital Systems, Inc. 221PQ 385, 388 (d. Cir. 1984) "Anticipation is established only when a single prior art reference discloses, either expressly or under principles of inherency, each and every

element of a claimed invention." Applicant points out that the following elements of Applicants' amended claims 1, 2, 7-11, 16, and 17 are not found in the Kornelsen reference:

"a piezo-electric stack connected to said passage and positioned proximate said flexure unit wherein said piezo-electric stack provides deflection of said flexure unit adjusting the size of said variable size passage for filtering said particles from said fluid," or

"a strain gauge operatively connected to said piezo-electric stack and said flexure unit that provides feedback on said deflection of said flexure unit," or

"a set screw operatively connected to said piezo-electric stack," or

"a window operatively connected to said variable size passage," or

"wherein said beads include optically labeled tags," or

"wherein said beads include bead surfaces and antibodies or antigens on said bead surfaces," or

"positioning a piezo-electric stack proximate said flexure unit wherein said piezo-electric stack provides deflection of said flexure unit adjusting the size of said variable size passage," or

"causing said piezo-electric stack to provide deflection of said flexure unit setting said variable size of said variable size passage so that said fluid passes through said variable size passage but said particles do not pass through said variable size passage," or

"providing a strain gauge operatively connected to said piezo-electric stack," or

"wherein said step of setting said size of said variable size passage is accomplished using said piezo-electric stack and said strain gauge operatively connected to said piezo-electric stack," or

"providing a set screw operatively connected to said piezo-electric stack," or

“wherein said step of setting said size of said variable size passage is accomplished using said piezo-electric stack and said set screw operatively connected to said piezo-electric stack,” or

“providing a window operatively connected to said variable size passage,” or

“attaching optically labeled tags to said beads,” or

“attaching antibodies or antigens to said beads.”

Since the elements described above are not found in the Kornelsen reference, the Kornelsen reference would not support a 35 USC §102 rejection.

#### 35 USC 103 Rejection - Kornelsen in View of Kyser et al

In numbered paragraph 2 of the Office Action mailed December 5, 2006, claims 3, 4, 13, and 14 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over the Kornelsen reference in view of the Kyser et al reference (US Patent No. 4,506,276).

Applicant has amended claims 3, 4, 13, and 14; therefore claims 3, 4, 13, and 14 are now presented in amended form. Since claims 3, 4, 13, and 14 now appear in amended form the 35 USC §103(a) rejection in the Office Action mailed December 5, 2006 no longer applies.

Applicants believe that claims 3, 4, 13, and 14 are patentable and that the Kornelsen and Kyser et al references would not support a 35 U.S.C. §103(a) rejection. The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966) that are applied for establishing a background for determining obviousness under 35 U.S.C. §103(a) include “Ascertaining the differences between the prior art and the claims at issue.”

The differences between the primary Kornelsen reference and Applicants’ invention defined by amended claims 3, 4, 13, and 14 includes the fact that the

following elements of amended claims 3, 4, 13, and 14 are not found in the primary Kornelsen reference:

“a piezo-electric stack connected to said passage and positioned proximate said flexure unit wherein said piezo-electric stack provides deflection of said flexure unit adjusting the size of said variable size passage for filtering said particles from said fluid,” or

“a strain gauge operatively connected to said piezo-electric stack and said flexure unit that provides feedback on said deflection of said flexure unit,” or

“a set screw operatively connected to said piezo-electric stack,” or

“positioning a piezo-electric stack proximate said flexure unit wherein said piezo-electric stack provides deflection of said flexure unit adjusting the size of said variable size passage,” or

“causing said piezo-electric stack to provide deflection of said flexure unit setting said variable size of said variable size passage so that said fluid passes through said variable size passage but said particles do not pass through said variable size passage,” or

“providing a strain gauge operatively connected to said piezo-electric stack,” or

“wherein said step of setting said size of said variable size passage is accomplished using said piezo-electric stack and said strain gauge operatively connected to said piezo-electric stack,” or

“providing a set screw operatively connected to said piezo-electric stack,” or

“wherein said step of setting said size of said variable size passage is accomplished using said piezo-electric stack and said set screw operatively connected to said piezo-electric stack,” or

The Kyser et al reference also fails to show the elements of claims 3, 4, 13, and 14 identified above. Since both references fail to show the elements, there can be no combination of the two references that would show Applicant’s invention defined by claims 3, 4, 13, and 14 and render it unpatentable. There is no

combination of the Kornelsen reference and the Kyser et al reference that would produce the combination of elements of Applicants' claims 3, 4, 13, and 14. Further, there is no teaching of combining the Kornelsen reference and the Kyser et al reference to meet Applicants' claims 3, 4, 13, and 14. Thus, the combination of references fails to support a rejection of the claims under 35 U.S.C. §103, and the rejection should be withdrawn.

Under MPEP §2142, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings. It should be noted that the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In *re* Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Since there is no suggestion or motivation to combine the references to produce Applicant's invention, a 35 U.S.C. §103(a) rejection of Applicant's claims would not be appropriate.

#### 35 USC 103 Rejection - Kornelsen in View of Wiget

In numbered paragraph 3 of the Office Action mailed December 5, 2006, claims 5, 6, and 15 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over the Kornelsen reference in view of the Wiget reference (US Patent No. 4,834,534).

Applicant has amended claims 5, 6, and 15; therefore claims 5, 6, and 15 are now presented in amended form. Since claims 5, 6, and 15 now appear in amended form the 35 U.S.C. §103(a) rejection in the Office Action mailed December 5, 2006 no longer applies.

Applicants believe that claims 5, 6, and 15 are patentable and that the Kornelsen, and Wiget references would not support a 35 U.S.C. §103(a) rejection. The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ

459 (1966) that are applied for establishing a background for determining obviousness under 35 U.S.C. §103(a) include "Ascertaining the differences between the prior art and the claims at issue."

The differences between the primary Kornelsen reference and Applicants' invention defined by amended claims 5, 6, and 15 includes the fact that the following elements of amended claims 5, 6, and 15 are not found in the primary Kornelsen reference:

"a piezo-electric stack connected to said passage and positioned proximate said flexure unit wherein said piezo-electric stack provides deflection of said flexure unit adjusting the size of said variable size passage for filtering said particles from said fluid," or

"a window operatively connected to said variable size passage," or

"wherein said window is a sapphire window," or

"positioning a piezo-electric stack proximate said flexure unit wherein said piezo-electric stack provides deflection of said flexure unit adjusting the size of said variable size passage," or

"causing said piezo-electric stack to provide deflection of said flexure unit setting said variable size of said variable size passage so that said fluid passes through said variable size passage but said particles do not pass through said variable size passage," or

"providing a window operatively connected to said variable size passage."

The Wiget reference also fails to show the elements of claims 5, 6, and 15 identified above. Since both references fail to show the elements, there can be no combination of the two references that would show Applicant's invention defined by claims 5, 6, and 15 and render it unpatentable. There is no combination of the Kornelsen reference and the Wiget reference that would produce the combination of elements of Applicants' claims 5, 6, and 15. Further, there is no teaching of combining the Kornelsen reference and the Wiget

reference to meet Applicants' claims 5, 6, and 15. Thus, the combination of references fails to support a rejection of the claims under 35 U.S.C. §103, and the rejection should be withdrawn.

Under MPEP §2142, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings. It should be noted that the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In *re* Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Since there is no suggestion or motivation to combine the references to produce Applicant's invention, a 35 U.S.C. §103(a) rejection of Applicant's claims would not be appropriate.

35 USC 103 Rejection - Kornelsen in View of Gruber et al

In numbered paragraph 4 of the Office Action mailed December 5, 2006, claims 18 and 19 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over the Kornelsen reference in view of the Gruber et al reference (US Patent No. 4,834,534).

Applicant has amended claims 18 and 19; therefore claims 18 and 19 are now presented in amended form. Since claims 18 and 19 now appear in amended form the 35 USC §103(a) rejection in the Office Action mailed December 5, 2006 no longer applies.

Applicants believe that claims 18 and 19 are patentable and that the Kornelsen, and Gruber et al references would not support a 35 U.S.C. §103(a) rejection. The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966) that are applied for establishing a background for determining obviousness under 35 U.S.C. §103(a) include "Ascertaining the differences between the prior art and the claims at issue."

The differences between the primary Kornelsen reference and Applicants' invention defined by amended claims 18 and 19 includes the fact that the following elements of amended claims 18 and 19 are not found in the primary Kornelsen reference:

"positioning a piezo-electric stack proximate said flexure unit wherein said piezo-electric stack provides deflection of said flexure unit adjusting the size of said variable size passage," or

"causing said piezo-electric stack to provide deflection of said flexure unit setting said variable size of said variable size passage so that said fluid passes through said variable size passage but said particles do not pass through said variable size passage," or

"wherein said step of causing said piezo-electric stack to provide deflection of said flexure unit allows said fluid to pass through said variable size passage but particles from 1 micron to 500 microns in size do not pass through said variable size passage," or

"wherein said particles are beads and including the step of attaching optically labeled tags to said beads," or

"wherein said particles are beads and including the step of attaching antibodies or antigens to said beads."

The Gruber et al reference also fails to show the elements of claims 18 and 19 identified above. Since both references fail to show the elements, there can be no combination of the two references that would show Applicant's invention defined by claims 18 and 19 and render it unpatentable. There is no combination of the Kornelsen reference and the Gruber et al reference that would produce the combination of elements of Applicants' claims 18 and 19. Further, there is no teaching of combining the Kornelsen reference and the Gruber et al reference to meet Applicants' claims 18 and 19. Thus, the combination of references fails to support a rejection of the claims under 35 U.S.C. §103, and the rejection should be withdrawn.

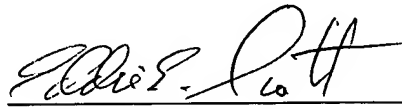


Under MPEP §2142, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings. It should be noted that the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In *re* Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Since there is no suggestion or motivation to combine the references to produce Applicant's invention, a 35 U.S.C. §103(a) rejection of Applicant's claims would not be appropriate.

SUMMARY

The undersigned respectfully submits that, in view of the foregoing amendments and the foregoing remarks, the rejections of the claims raised in the Office Action dated December 5, 2005 have been fully addressed and overcome, and the present application is believed to be in condition for allowance. It is respectfully requested that this application be reconsidered, that the claims be allowed, and that this case be passed to issue. If it is believed that a telephone conversation would expedite the prosecution of the present application, or clarify matters with regard to its allowance, the Examiner is invited to call the undersigned attorney at (925) 424-6897.

Respectfully submitted,



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